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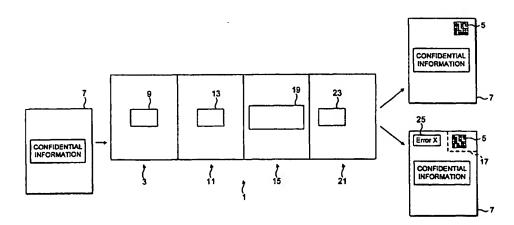
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(54) Title: ITEM HANDLING SYSTEM AND METHOD



(57) Abstract: An item handling system for and method of handling items in an item stream, the system comprising: a validation unit for validating an element containing an authentication code on each item in an item stream, wherein an item is assigned as being spoiled where the element does not satisfy at least one validation criterion; and a sorting unit for separating spoiled items from the item stream.

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INTERNATIONAL SEARCH REPORT

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A. CLASSI IPC 7	FICATION OF SUBJECT MATTER G07B17/00							
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EPO-Internal								
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT							
Category °	Citation of document, with Indication, where appropriate, of the rela	evant passages	Relevant to claim No.					
X	US 5 898 153 A (LAGAN THOMAS A E 27 April 1999 (1999-04-27)	IT AL)	1-7, 48-54, 94,95, 99-104,					
A	column 3, line 44 -column 4, line	106,108 8-47, 55-93, 96-98, 105,107,						
	column 5, line 60 -column 6, line	. 4	109					
X	GB 2 174 039 A (PITNEY BOWES) 29 October 1986 (1986-10-29) page 2, line 103 -page 3, line 12 figures 2-4	1-10, 48-57						
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citation Of docume	s cited to establish the publication date of another or other special reason (as specified) nt referring to an oral disclosure, use, exhibition or	 Y' document of particular rele cannot be considered to i 						
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk		Authorized officer						
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.(Conuna	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
ategory °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
(US 5 495 981 A (WARTHER RICHARD 0) 5 March 1996 (1996-03-05) abstract; figures column 6, line 18 - line 26	104–109
4	US 2002/087493 A1 (HERBERT RAYMOND JOHN) 4 July 2002 (2002-07-04) paragraph '0002!; figures 3-5	101–103
A	US 4 445 635 A (BARR ARTHUR C) 1 May 1984 (1984-05-01) the whole document	94–100
	•	

International Accation No
PCT/EP 03/10731

Patent document cited in search report		Publicátion date		Patent family member(s)	Publication date
US 5898153	Α	27-04-1999	US	5659163 A	19-08-1997
GB 2174039	———— А	29-10-1986	US	4757537 A	12-07-1988
	••	25 10 1500	US	4725718 A	16-02-1988
			US	4743747 A	10-02-1988
			AU		10-05-1988
			AU	584187 B2 5634586 A	18-05-1989
			AU		23-10-1986
			AU	590752 B2	16-11-1989
			AU	5634686 A	23-10-1986
			AU	588308 B2	14-09-1989
			BR	5634786 A	23-10-1986
			BR	8601837 A	23-12-1986
			BR	8601838 A	23-12-1986
				8601839 A	23-12-1986
			CA CA	1259704 A1	19-09-1989
			CH	1258916 A1	29-08-1989
			CH	675496 A5	28-09-1990
			CH	672378 A5 674098 A5	15-11-1989
			DE	3613007 A1	30-04-1990
			DE	3613007 A1	23-10-1986
			DE	3613025 A1	13-11-1986
			FR	2580843 A1	23-10-1986
			FR	2580844 A1	24-10-1986
			FR	2580845 A1	24-10-1986
			GB	2173741 A ,B	24-10-1986
			GB	2173741 A ,B 2173742 A ,B	22-10-1986
			IT	1190272 B	22-10-1986
			ĬŤ		16-02-1988
			ĬŤ	1214679 B 1221060 B	18-01-1990
			ĴΡ	62058388 A	21-06-1990
			JP	61292790 A	14-03-1987
			JP	61292791 A	23-12-1986
			US		23-12-1986
			ZA	4775246 A	04-10-1988
			ZA	8602803 A 8602804 A	30-12-1986
			ZA		30-12-1986
			CA	8602805 A 1263676 A1	30-12-1986
			CA	1255800 A1	05-12-1989
			CA	1264341 A2	13-06-1989
				1204341 AZ	09-01-1990
US 5495981	Α	05-03-1996	US	6039356 A	21-03-2000
			ÜS	5769457 A	23-06-1998
			US	6305716 B1	23-10-2001
			US	5743567 A	28-04-1998
US 2002087493	A1	04-07-2002	EP	1001384 A2	17-05-2000
US 4445635	Α	01-05-1984	NONE		